

What is claimed is:

1. A liquid crystal display comprising:
a liquid crystal panel having an upper plate, a lower plate
and liquid crystal injected between the upper plate and the lower
plate;
a polarizing plate disposed on the liquid crystal panel; and
an optical film containing a linear polarizer coated on a
surface thereof, the linear polarizer having a light
transmittance axis perpendicular to a light transmittance axis of
the polarizing plate, the optical film positioned at a bottom
surface of the liquid crystal panel.
2. A coating type optical film comprising:
a circular polarizer containing cholesteric liquid crystal;
an adhesive layer formed on the circular polarizer;
a phase difference film formed on the adhesive layer; and
a linear polarizer directly coated on the phase difference
film.
3. The coating type optical film according to claim 2,
further comprising a compensation film formed between the phase
difference film and the circular polarizer.

4. The coating type optical film according to claim 2, wherein the linear polarizer comprises a lyotropic liquid crystal.

5. The coating type optical film according to claim 4, wherein the lyotropic liquid crystal contains dye or pigment.

6. The coating type optical film according to claim 2, wherein the optical film has a thickness of at most about 200 μm .

7. The coating type optical film according to claim 2, wherein the linear polarizer has a thickness of a few μm .

8. A coating type optical film comprising:
an interference type linear polarizer; and
a linear polarizer directly coated on the interference type linear polarizer.

9. The coating type optical film according to claim 8, wherein the linear polarizer comprises a lyotropic liquid crystal.

10. The coating type optical film according to claim 9, wherein the lyotropic liquid crystal contains dye or pigment.

11. The coating type optical film according to claim 8,

wherein the optical film has a thickness of at most about 200 μm .

12. The coating type optical film according to claim 8, wherein the linear polarizer has a thickness of a few μm .

13. A method for fabricating a coating type optical film, comprising:

- (a) forming a circular polarizer containing cholesteric liquid crystal on a transparent substrate;
- (b) forming an adhesive layer on the circular polarizer;
- (c) forming a phase difference film on the adhesive layer;

and

- (d) forming a linear polarizer by directly coating liquid crystal on the phase difference film.

14. The method according to claim 13, further comprising:

- (e) after (b), forming a compensation film; and
- (f) forming another adhesive layer on the compensation film.

15. The method according to claim 13, wherein the liquid crystal is coated by a method selected from the group consisting of a bar coating method, a knife coating method and a slit-die coating method.

16. The method according to claim 13, wherein the coated liquid crystal comprises a lyotropic liquid crystal.

17. The method according to claim 16, wherein the lyotropic liquid crystal contains dye or pigment.

18. The method according to claim 13, wherein the linear polarizer has an E-mode polarization.

19. The method according to claim 13, wherein the optical film has a thickness of at most about 200 μm .

20. The method according to claim 13, wherein the linear polarizer has a thickness of a few μm .

21. A method for fabricating a coating type optical film, comprising:

(a) preparing an interference type linear polarizer; and

(b) forming a linear polarizer by directly coating liquid crystal on the interference type linear polarizer.

22. The method according to claim 21, wherein the liquid crystal is coated by a method selected from the group consisting of a bar coating method, a knife coating method and a slit-die

coating method.

23. The method according to claim 21, wherein the coated liquid crystal comprises a lyotropic liquid crystal.

24. The method according to claim 23, wherein the lyotropic liquid crystal includes dye or pigment.

25. The method according to claim 21, wherein the linear polarizer has an E-mode polarization.

26. The method according to claim 21, wherein the optical film has a thickness of at most about 200 μm .

27. The method according to claim 21, wherein the linear polarizer has a thickness of a few μm .

28. A coating type optical film comprising:
a circular polarizer containing cholesteric liquid crystal;
an adhesive layer formed on the circular polarizer;
a phase difference film formed on the adhesive layer; and
a linear polarizer directly coated on a substrate adhered to
a top of the phase difference film.

29. The coating type optical film according to claim 28, wherein the linear polarizer comprises a lyotropic liquid crystal.

30. The coating type optical film according to claim 29, wherein the lyotropic liquid crystal contains dye or pigment.

31. The coating type optical film according to claim 28, wherein the optical film has a thickness of at most about 200 μm .

32. The coating type optical film according to claim 28, wherein the linear polarizer has a thickness of a few μm .

33. A coating type optical film comprising:
an interference type linear polarizer; and
a linear polarizer directly coated on a substrate adhered to
a top of the interference type linear polarizer.

34. The coating type optical film according to claim 33, wherein the linear polarizer comprises a lyotropic liquid crystal.

35. The coating type optical film according to claim 34, wherein the lyotropic liquid crystal contains dye or pigment.

36. The coating type optical film according to claim 33,

wherein the optical film has a thickness of at most about 200 μm .

37. The coating type optical film according to claim 33,
wherein the linear polarizer has a thickness of a few μm .